AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A method of detecting or identifying an analyte of interest in a sample, comprising:

(i) contacting the sample containing the analyte with one or more affinity ~~molecules~~ molecule/charged carrier molecule conjugates to form a complex of the analyte and the one or more ~~affinity molecules~~ conjugates, wherein each ~~of the one or more~~ affinity ~~molecules~~ molecule has an affinity against the analyte, each charged carrier molecule has a net negative charge, and the charged carrier molecule causes a change in a separation property of the analyte by binding to the analyte through the affinity molecule to form a complex of the analyte and the affinity molecule/charged carrier molecule conjugate;

(ii) providing a microfluidic device having a separation channel filled with a separation media and a polyanion added to the separation media, the separation channel having at least one microscale dimension of between about 0.1 and 500 microns;

(iii) electrophoretically separating the complex and any unbound ~~affinity molecule~~ conjugate using the filled separation channel; and

(iv) detecting the complex to identify the presence of the analyte or to determine an amount of the analyte in the sample, wherein the polyanion added to the separation media binds interfering sample constituents that would bind non-specifically to the ~~one or more affinity molecules~~ charged carrier molecule, thereby reducing interference with detecting the complex.

2. (Canceled)

3. (Currently amended) The method of claim 1, wherein the polyanion is selected from ~~the group consisting~~ one or more of polysaccharides, polynucleotides, polypeptides, synthetic macromolecular compounds, or ceramics; ~~and~~ or a complex thereof.

4. (Currently amended) The method of claim 1, wherein the polyanion is selected from ~~the group consisting~~ one or more of poly-dIdC, heparin sulfate, dextran sulfate, polytungstic acid, polyanethole sulfonic acid, polyvinyl sulfate, polyacrylate, chondroitin sulfate, plasmid DNA, calf thymus DNA, salmon sperm DNA, DNA coupled to cellulose, glass particles, colloidal glass, ~~and~~ or glass milk, or a complex thereof.

5-7 (Canceled)

8. (Previously presented) The method of claim 1, wherein the polyanion comprises heparin sulfate.

9. (Original) The method of claim 1, wherein at least one of the one or more affinity molecules is labeled with a detectable marker.

10. (Currently amended) The method of claim 1, wherein ~~at least one of the one or more affinity molecules is bound to a charged carrier molecule to form one or more conjugates of the affinity molecule and the charged carrier molecule, and wherein the charged carrier molecule causes a change in a separation property of the analyte by binding to the analyte through the one or more affinity molecules to form a complex of the analyte, the affinity molecule, and the charged carrier molecule~~ the contacting step further comprises contacting the sample with one or more non-conjugated affinity molecules, wherein each non-conjugated affinity molecules has an affinity against the analyte, to form a complex of the analyte, at least one conjugate, and at least one non-conjugated affinity molecule.

11. (Currently amended) The method of claim 1 or 10, wherein the affinity molecule is one which binds to the analyte by an interaction selected from a protein-protein interaction, a protein-chemical interaction or a chemical-chemical interaction.

12. (Currently amended) The method of claim 1 or 10, wherein the affinity molecule is one which binds to the analyte by an interaction selected from an antigen-antibody interaction, a sugar chain-lectin interaction, an enzyme-inhibitor interaction, a protein-peptide chain interaction, a chromosome or nucleotide chain-nucleotide chain interaction, a nucleotide-ligand interaction or a receptor-ligand interaction.

13. (Currently amended) The method of claim 1 or 10, wherein the affinity molecule is selected from ~~the group consisting of~~ one or more of an antibody, an Fab, $F(ab')_2$ or Fab' fragment of an antibody, an antibody variable region, a lectin, avidin, a receptor, an affinity peptide, an aptamer, ~~and~~ or a DNA binding protein.

14. (Currently amended) The method of claim ~~10~~ 1, wherein the charged carrier molecule is an anionic molecule.

15. (Canceled)

16. (Currently amended) The method of claim 14, wherein the charged carrier molecule is an anionic molecule ~~comprising~~ selected from a nucleotide chain or a sulfonated polypeptide.

17. (Currently amended) The method of claim ~~10~~ 1, wherein the charged carrier molecule comprises DNA, RNA, an anionic polymer, or a sulfonated polypeptide

18. (Original) The method of claim 17, wherein the charged carrier molecule comprises DNA comprising one or more synthetic sequences.

19. (Original) The method of claim 18, wherein the one or more synthetic sequences comprise one or more nucleotide analogs comprising a linker group or a linker reactive group.

20. (Currently amended) The method of claim 19, wherein the linker group or linker reactive group ~~comprises~~ is selected from an amino group, a thiol, a carboxyl group, an imidazol group, or a succinimide group.

21. (Original) The method of claim 20, further comprising covalently bonding a detectable marker to the linker group or linker reactive group.

22. (Previously presented) The method of claim 1, wherein at least one of the one or more affinity molecules is labeled with a detectable marker.

23. (Currently amended) The method of claim 10, wherein at least one conjugate or at least one non-conjugated affinity molecule ~~which does not form a conjugate~~ is labeled with a detectable marker.

24. (Currently amended) The method of claim 10, wherein at least one ~~affinity molecule and the charged carrier molecule forming the~~ conjugate is labeled by a detectable marker.

25. (Currently amended) The method of claim 10, wherein the charged carrier molecule in ~~the~~ at least one conjugate is labeled by a detectable marker.

26. (Currently amended) The method of claim 10, wherein the affinity molecule in ~~the~~ at least one conjugate is labeled by a detectable marker.

27. (Currently amended) The method of claim 9, 21, 22, 23, 24, 25 or 26, wherein the detectable marker is selected from one or more of a fluorescent dye, a luminescent dye, a phosphorescent dye, a fluorescent protein, a luminescent protein or particle, a radioactive tracer,

a chemiluminescent compound, a redox mediator, an electrogenic compound, an enzyme, a colloidal gold particle, or a silver particle.

28. (Canceled)

29. (Previously presented) The method of claim 1, wherein the separation media comprises a size exclusion resin, a polyacrylamide gel, polyethylene glycol (PEG), polyethyleneoxide (PEO), a co-polymer of sucrose and epichlorohydrin, polyvinylpyrrolidone (PVP), hydroxyethylcellulose (HEC), poly-N,N-dimethylacrylamide (PDMA), or an agarose gel.

30. (Canceled)

31. (Previously presented) The method of claim 1, wherein the polyanion is present in the separation media at a concentration of between about 0.01 to 5%.

32. (Previously presented) The method of claim 1, wherein the polyanion is present in the separation media at a concentration of between about 0.05 to 2%.

33. (Canceled)

34. (Canceled)

35. (Original) The method of claim 1, wherein the separation channel has at least one cross-sectional microscale dimension of between about 0.1 and 200 microns.

36. (Canceled)

37. (Currently amended) The method of claim ~~10~~ 1, wherein:

step (i) comprises contacting the sample containing the analyte with the one or more ~~conjugates of the~~ affinity molecule ~~and the~~ /charged carrier molecule conjugates, wherein at least one of the one or more conjugates is labeled by a detectable marker, to form a complex containing the analyte and the conjugate, some of which are labeled by the detectable marker;

step (iii) comprises electrophoretically separating the complex from the at least one conjugate labeled by the detectable marker that is not involved in forming the complex ~~in~~ using the filled separation channel of the microfluidic device;

step (iv) comprises:

(a) measuring an amount of the separated complex or detecting a presence of the separated complex; and

(b) determining an amount of the analyte in the sample on the basis of the measured amount or identifying a presence of the analyte in the sample on the basis of the detected presence~~; and wherein the affinity molecule in the conjugate has a property capable of binding to the analyte~~.

38. (Currently amended) The method of claim 10, wherein:

step (i) comprises contacting the sample containing the analyte with the one or more non-conjugated affinity molecules and the one or more ~~conjugates of the~~ affinity molecule ~~and the~~ /charged carrier molecule conjugates, wherein either at least one of the non-conjugated affinity molecules or at least one of the conjugates is labeled by a detectable marker, to form a complex containing the analyte, the non-conjugated affinity molecule, and the conjugate;

step (iii) comprises electrophoretically separating the complex from any free non-conjugated affinity molecule labeled by the detectable marker or ~~the~~ any conjugate labeled by the detectable marker that is not involved in forming the complex ~~in~~ using the filled separation channel of the microfluidic device;

step (iv) comprises:

(a) measuring an amount of the separated complex or detecting a presence of the separated complex; and

(b) determining an amount of the analyte in the sample on the basis of the measured amount or identifying a presence of the analyte in the sample on the basis of the detected presence~~; and wherein each of the affinity molecule and the affinity molecule in the conjugate has a property capable of binding to the analyte~~.

39. (Currently amended) A method for determining an analyte in a sample, the method comprising:

(i) contacting (a) the sample containing the analyte, (b) either the analyte labeled by a detectable marker to form a labeled analyte or an analogue of the analyte labeled by a detectable marker to form a labeled analogue, and ~~an~~ (c) one or more affinity molecule/charged carrier molecule conjugates, thereby forming a first complex of the analyte in the sample and the ~~affinity molecule~~ one or more conjugates and a second complex of either the labeled analyte and the ~~affinity molecule~~ one or more conjugates or the labeled analogue and the ~~affinity molecule~~ one or more conjugates; wherein the affinity molecule in each conjugate has an affinity against the analyte in the sample and the labeled analyte, or an affinity against the analyte in the sample and the labeled analogue, and wherein each charged carrier molecule has a net negative charge, and the charged carrier molecule causes a change in a separation property of the analyte or the analogue by binding to the analyte or the analogue through the affinity molecule to form a complex of the analyte or the analogue, with the affinity molecule/charged carrier molecule conjugate;

(ii) providing a microfluidic device having a separation channel filled with a separation media and a polyanion added to the separation media;

(iii) electrophoretically separating the second complex from any free labeled analyte or ~~the~~ free labeled analogue that is not involved in forming the second complex using the filled separation channel;

(iv) measuring an amount of the separated second complex or an amount of the separated free labeled analyte or the separated free labeled analogue; and

(v) determining an amount of the analyte in the sample on the basis of the measured amount; ~~wherein the affinity molecule has a property capable of binding to the analyte in the sample and the labeled analyte or a property capable of binding to the analyte in the sample and the labeled analogue, and~~ wherein the polyanion added to the separation media binds interfering sample constitutes that would bind non-specifically to the ~~affinity molecule~~ charged carrier molecule, thereby reducing interference with the determination.

40. (Canceled)

41. (Currently amended) The method of claim 39, wherein:

step (i) comprises contacting (a) the sample containing the analyte, (b) either the labeled analyte or the labeled analogue, (c) the ~~affinity molecule, and a~~ one or more conjugates ~~of the affinity molecule and a charged carrier molecule~~ and (d) one or more non-conjugated affinity molecules, wherein each of the conjugated and non-conjugated affinity molecules have an affinity against the analyte in the sample and the labeled analyte or the analyte in the sample and the labeled analogue, thereby forming a first complex of the analyte in the sample, the non-conjugated affinity molecule, and the conjugate, and a second complex of either the labeled analyte, the non-conjugated affinity molecule, and the conjugate, or the labeled analogue, the non-conjugated affinity molecule, and the conjugate;

step (iii) comprises electrophoretically separating the second complex from any free labeled analyte or the labeled analogue that is not involved in forming the second complex ~~in~~ using the filled separation channel of the microfluidic device;

step (iv) comprises measuring an amount of the separated second complex or an amount of the separated free labeled analyte or the separated free labeled analogue;

step (v) comprises determining an amount of the analyte in the sample on the basis of the measured amount~~; and wherein each of the affinity molecule and the affinity molecule in the conjugate has a property capable of binding to the analyte in the sample and the labeled analyte or the analyte in the sample and the labeled analogue~~.

42. (Currently amended) A method for determining an analyte in a sample, the method comprising:

(i) contacting (a) the sample containing the analyte, (b) either the analyte bound to a charged carrier molecule or an analogue of the analyte bound to a charged carrier molecule, and (c) an affinity molecule labeled by a detectable marker, thereby forming a first complex of either the analyte bound to the charged carrier molecule and the labeled affinity molecule or the analogue bound to the charged carrier molecule and the labeled affinity molecule and a second complex of the analyte in the sample and the labeled affinity molecule, wherein the affinity molecule has an affinity against the analyte in the sample and the analyte bound to the charged carrier molecule or the analyte in the sample and the analogue bound to the charged carrier molecule, charged carrier molecule has a net negative charge, and the charged carrier molecule has a property capable of causing a change in a separation property of the first complex;

(ii) providing a microfluidic device having a separation channel filled with a separation media and a polyanion added to the separation media;

(iii) electrophoretically separating the first complex from any second complex using the filled separation channel;

(iv) measuring an amount of the separated first complex or an amount of the second complex; and

(v) determining an amount of the analyte in the sample on the basis of the measured amount; ~~wherein the affinity molecule has a property capable of binding to the analyte in the sample and the analyte bound to the charged carrier molecule or the analyte in the sample and the analogue bound to the charged carrier molecule, and~~ wherein the polyanion added to the separation media binds interfering sample constituents that would bind non-specifically to the ~~affinity molecule~~ charged carrier molecule, thereby reducing interference with the determination.

43. (Currently amended) The method of claim 1, wherein the sample ~~comprises~~ is selected from a serum, a plasma, a whole blood, a tissue extract, a cell extract, a nuclear extract, a culture media, a microbial culture extract, members of a molecular library, a clinical sample, a sputum specimen, a stool specimen, a cerebral spinal fluid, a urine sample, a uro-genital swab, a throat swab, or an environmental sample.

44. (Currently amended) The method of claim 1, wherein the analyte ~~comprises~~ is one or more selected from AFP, hCG, TSH, FSH, LH, interleukin, Fas ligand, CA19-9, CA125, PSA, HBsAg, anti-HIV antibody, or T4.

45-50 (Canceled)

51. (Currently amended) A method of concentrating an analyte of interest in a sample, the method comprising:

(i) contacting the sample containing the analyte with one or more ~~of a conjugate of an~~ affinity molecule ~~and a~~/charged carrier molecule conjugates to form a complex of the analyte

and the one or more conjugates, wherein each affinity molecule has an affinity against the analyte, each charged carrier molecule has a net negative charge, and the charged carrier molecule causes a change in a migration property of the analyte by binding to the analyte through the affinity molecule to form a complex of the analyte and the affinity molecule/charged carrier molecule conjugate;

(ii) providing a microfluidic device having a concentration channel filled with a concentration media and a polyanion added to the concentration media, the concentration channel having at least one microscale dimension of between about 0.1 and 500 microns; and

(iii) electrophoretically concentrating the complex using the filled concentration channel; ~~wherein the charged carrier molecule causes a change in a migration property of the analyte by binding to the analyte through the affinity molecule to form a complex of the analyte, the affinity molecule and the charged carrier molecule, and~~ wherein the polyanion added to the concentration media binds interfering sample constituents that would bind non-specifically to the ~~affinity molecule~~ charged carrier molecule.

52. (Canceled)

53. (Currently amended) The method of claim 51, wherein contacting the sample containing the analyte with one or more conjugates ~~of an affinity molecule and a charged carrier molecule~~ to form a complex of the analyte and the conjugate is conducted in a microchannel fluidically connected to the concentration channel having at least one microscale dimension of between about 0.1 and 500 microns.

54. (Canceled)

55. (Previously presented) The method of claim 51, wherein concentrating the complex is conducted by utilizing the difference in an electrophoretic mobility between the

complex and noise constituents in the sample on the basis of charge of the charged carrier molecule.

56. (Previously presented) The method of claim 51, wherein concentrating the complex is conducted by utilizing the difference in an adsorption property between the complex and noise constituents in the sample on the basis of charge of the charged carrier molecule.

57. (Currently amended) The method of claim 51, wherein concentrating the complex is conducted according to a concentration method selected from ~~the group consisting of~~ field amplification sample stacking (FASS), field amplification sample injection (FASI), isotachophoresis (ITP), isoelectric focusing (IF) ~~and~~ or solid phase extraction (SPE).

58. (Currently amended) The method of claim 51, wherein concentrating the complex is conducted according to a concentration method selected from ~~the group consisting of~~ field amplification sample stacking (FASS) ~~and~~ or isotachophoresis (ITP).

59. (Canceled)

60. (Currently amended) The method of claim ~~59~~ 51, wherein the charged carrier molecule is an anionic molecule ~~comprising~~ selected from a nucleotide chain or a sulfonated polypeptide.

61. (Currently amended) The method of claim 51, wherein the charged carrier molecule comprises DNA, RNA, ~~a cationic~~ an anionic polymer, or a sulfonated polypeptide

62. (Currently amended) The method of claim 61, wherein the charged carrier molecule comprises DNA comprising one or more synthetic sequences.

63. (Original) The method of claim 62, wherein the one or more synthetic sequences comprise one or more nucleotide analogs comprising a linker group or linker reactive group.

64. (Currently amended) The method of claim 63, wherein the linker group or linker reactive group ~~comprises~~ is selected from an amino group, a thiol, a carboxyl group, an imidazol group, or a succinimide group.

65. (Original) The method of claim 64, further comprising covalently bonding a detectable marker to the linker group or the linker reactive group.

66. (Currently amended) The method of claim 62, wherein the one or more synthetic sequences ~~consists of~~ comprises one or more nucleotides selected from a phosphorothioate analog of nucleotide, a nucleotide that contains a methylene group in the place of the oxygen in the ribose ring, or a nucleotide in which ~~has~~ a replacement ~~of~~ for the 2'-sugar deoxy substituent is selected from a ~~with~~ 2'-fluoro, 2'-O-methyl, 2-O-alkoxyl, and 2'-O-allyl modification

67. (Currently amended) The method of claim 51, wherein the contacting step further comprises contacting the sample with one or more non-conjugated affinity molecules to form a complex of the analyte, the conjugate and the non-conjugated affinity molecule.

68. (Currently amended) The method of claim 51 or 67, wherein the affinity molecule is one which binds to the analyte by an interaction selected from a protein-protein interaction, a protein-chemical interaction or a chemical-chemical interaction.

69. (Currently amended) The method of claim 51 or 67, wherein the affinity molecule is one which binds to the analyte by an interaction selected from an antigen-antibody interaction, a sugar chain-lectin interaction, an enzyme-inhibitor interaction, a protein-peptide chain interaction, a chromosome or nucleotide chain-nucleotide chain interaction, a nucleotide-ligand interaction or a receptor-ligand interaction.

70. (Currently amended) The method of claim 51 or 67, wherein the affinity molecule is selected from ~~the group consisting~~ one of more of an antibody, an Fab, $F(ab')_2$ or

Fab' fragment of an antibody, an antibody variable region, ~~a lection~~ lectin, an avidin, a receptor, an affinity peptide, an aptamer, ~~and~~ or a DNA binding protein.

71. (Currently amended) The method of claim 67, wherein at least one conjugate or at least one non-conjugated affinity molecule ~~which does not form a conjugate~~ is labeled with a detectable marker.

72. (Currently amended) The method of claim 51, wherein at least one ~~of the affinity molecule and the charged carrier molecule forming the~~ conjugate is labeled by a detectable marker.

73. (Original) The method of claim 51, wherein the charged carrier molecule in the conjugate is labeled by a detectable marker.

74. (Original) The method of claim 51, wherein the affinity molecule in the conjugate is labeled by a detectable marker.

75. (Currently amended) The method of claim ~~67,~~ 65, 71, 72, 73, or 74, wherein the detectable marker is selected from one or more of a fluorescent dye, a luminescent dye, a phosphorescent dye, a fluorescent protein, a luminescent protein or particle, a radioactive tracer, a chemiluminescent compound, a redox mediator, an electrogenic compound, an enzyme, a colloidal gold particle, or a silver particle.

76. (Canceled)

77. (Canceled)

78. (Currently amended) The method of claim 51, wherein the polyanion is selected from ~~the group consisting~~ one or more of polysaccharides, polynucleotides, polypeptides, synthetic macromolecular compounds, or ceramics; ~~and~~ or a complex ~~complexes~~ thereof.

79. (Currently amended) The method of claim 51, wherein the polyanion is selected from ~~the group consisting~~ one of more of poly-dIdC, heparin sulfate, dextran sulfate, polytungstic acid, polyanethole sulfonic acid, polyvinyl sulfate, polyacrylate, chondroitin sulfate, plasmid DNA, calf thymus DNA, salmon sperm DNA, DNA coupled to cellulose, glass particles, colloidal glass, ~~and~~ or glass milk; or a complex thereof.

80-83. (Canceled)

84. (Previously presented) The method of claim 51, wherein the polyanion comprises heparin sulfate.

85. (Canceled)

86. (Previously presented) The method of claim 51, wherein the concentration media comprises a size exclusion resin, a polyacrylamide gel, polyethylene glycol (PEG), polyethyleneoxide (PEO), a co-polymer of sucrose and epichlorohydrin, polyvinylpyrrolidone (PVP), hydroxyethylcellulose (HEC), poly-N,N-dimethylacrylamide (PDMA), or an agarose gel.

87. (Canceled)

88. (Previously presented) The method of claim 51, wherein the polyanion is added to the concentration media at a concentration of between about 0.01 to 5%.

89. (Previously presented) The method of claim 51, wherein the polyanion is added to the concentration media at a concentration of between about 0.05 to 2%.

90. (Canceled).

91. (Previously presented) The method of claim 51, wherein the polyanion comprises heparin sulfate which is added to the sample buffer at a concentration of between about 0.001 to 2%.

92. (Original) The method of claim 51, wherein the concentration channel has at least one cross-sectional microscale dimension of between about 0.1 and 200 microns.

93. (Currently amended) A method of detecting or identifying an analyte of interest in a sample, the method comprising:

(i) contacting the sample containing the analyte with one or more ~~conjugates of an~~ affinity molecule-~~and a~~-/charged carrier molecule conjugates to form a complex of the analyte and the one or more conjugates, wherein each affinity molecule has an affinity against the analyte, each charged carrier molecule has a net negative charge, and the charged carrier molecule causes a change in a migration property of the analyte by binding to the analyte through the affinity molecule to form a complex of the analyte and the affinity molecule/charged carrier molecule conjugate;

(ii) providing a microfluidic device having a concentration channel filled with a concentration media and a first polyanion added to the concentration media, the concentration channel having at least one microscale dimension of between about 0.1 and 500 microns;

(iii) concentrating the complex using the filled concentration channel;

(iv) electrophoretically separating the complex and any unbound conjugate by using a separation channel in a microfluidic device comprising at least one separation channel, the separation channel being filled with a separation media and a second polyanion added to the separation media, the separation channel having at least one microscale dimension of between about 0.1 and 500 microns; and

(v) detecting the complex to identify the presence of the analyte or to determine an amount of the analyte in the sample, wherein the concentrating and/~~or~~ separating steps are ~~is~~ conducted in the presence of a the first and second polyanions, respectively, wherein the first and

second polyanions ~~binds~~ bind interfering sample constituents that would bind non-specifically to the ~~affinity molecule~~ charged carrier molecule, thereby reducing interference with detecting the complex~~, and wherein the charged carrier molecule causes a change in a migration property of the analyte by binding to the analyte through the affinity molecule to form a complex of the analyte, the affinity molecule and the charged carrier molecule~~.

94. (Canceled)

95. (Currently amended) The method of claim 1 or 37, wherein two or more conjugates are used, and wherein each affinity molecule in the two or more conjugates has a property capable of binding with the analyte at a different site on the analyte from every other affinity molecule~~, and wherein the charged carrier molecule has a property capable of causing a change in a separation property of the analyte by binding to the analyte through the affinity molecule to form a complex of the analyte, the affinity molecule, and the charged carrier molecule~~.

96. (Currently amended) The method of claim 10 or 38, ~~wherein two or more affinity molecules are used, and~~ wherein each conjugated and non-conjugated affinity molecule has a property capable of binding with the analyte at a different site on the analyte from every other affinity molecule~~, and wherein the charged carrier molecule has a property capable of causing a change in a separation property of the analyte by binding to the analyte through the affinity molecule to form a complex of the analyte, the affinity molecule, and the charged carrier molecule~~.

97. (Canceled)

98. (Currently amended) The method of claim ~~40~~ 39, wherein two or more conjugates are used, and wherein each affinity molecule in the two or more conjugates has a

property capable of binding with the analyte in the sample and the labeled analyte at a different site on the analyte in the sample and a different site on the labeled analyte from every other affinity molecule, or each affinity molecule in the conjugate has a property capable of binding with the analyte in the sample and the labeled analogue at a different site on the analyte in the sample and a different site on the labeled analogue from every other affinity molecule~~, and wherein the charged carrier molecule has a property capable of causing a change in a separation property of the labeled analyte or the labeled analogue by binding to the labeled analyte or the labeled analogue through the affinity molecule to form a complex of the labeled analyte or the labeled analogue, the affinity molecule, and the charged carrier molecule~~.

99. (Currently amended) The method of claim 41, wherein two or more affinity molecules are used, and wherein each affinity molecule has a property capable of binding with the analyte in the sample and the labeled analyte at a different site on the analyte in the sample and a different site on the labeled analyte from every other affinity molecule, or each affinity molecule has a property capable of binding with the analyte in the sample and the labeled analogue at a different site on the analyte in the sample and a different site on the labeled analogue from every other affinity molecule~~, and wherein the charged carrier molecule has a property capable of causing a change in a separation property of the labeled analyte or the labeled analogue by binding to the labeled analyte or the labeled analogue through the affinity molecule to form a complex of the labeled analyte or the labeled analogue, the affinity molecule, and the charged carrier molecule~~.

100. (Currently amended) The method of claim 42, wherein two or more affinity molecules are used, and wherein each affinity molecule has a property capable of binding with the analyte in the sample and the analyte bound to the charged carrier molecule at a different site

on the analyte in the sample and a different site on the analyte bound to the charged carrier molecule from every other affinity molecule, or each affinity molecule has a property capable of binding with the analyte in the sample and the analogue bound to the charged carrier molecule at a different site on the analyte in the sample and a different site on the analogue bound to the charged carrier molecule from every other affinity molecule~~, and wherein the charged carrier molecule has a property capable of causing a change in a separation property of the first complex by binding to the analyte or the analogue to form a complex of the analyte, the affinity molecule, and the charged carrier molecule~~.